## WHAT IS CLAIMED IS:

- 1 1. An electric parking brake system comprising:
- 2 a parking brake (11), and
- an electric motor (24), wherein
- 4 the parking brake (11) is activated by the electric motor
- 5 (24), and
- 6 the operation of the parking brake (11) is controlled
- 7 such that a vehicle is decelerated at a target deceleration
- 8 (Gt) of a predetermined magnitude when an operation command
- 9 to operate the parking brake (11) is issued by a driver while
- the vehicle is running.
- 1 2. The electric parking brake system as set forth in Claim
- 2 1, wherein
- 3 the operation command is issued based on the operation
- of an operating member (23b) by the driver, and
- 5 the magnitude of the target deceleration (Gt) is set based
- on an amount of operation of the operating member (23b).
- 1 3. The electric parking brake system as set forth in Claim
- 2 2, wherein
- the operating member (23b) comprises a switch which
- 4 changes over from a non-command position to an operation command
- 5 position when depressed by the driver and which is held at the
- 6 operation command position only while kept depressed by the

7 driver,

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the number of changeovers from the non-command position to the operation command position constitutes the amount of operation, and

when the switch continues to be situated at the operation command position even after a vehicle body deceleration (GRF) increases to the target deceleration (Gt), the target deceleration (Gt) is increased.

- 1 4. An electric parking brake system comprising:
- 2 a parking brake (11), and
- 3 an electric motor (24), wherein
- the parking brake (11) is activated by the electric motor
- 5 (24), and
- an upper limit value for a vehicle body deceleration (GRF)
- 7 is set in advance, and
- the operation of the parking brake (11) is controlled such that the vehicle body deceleration (GRF) does not exceed the upper limit value so set when an operation command to operate the parking brake (11) is issued by a driver while the vehicle
- 12 is running.